KANSAS

RODERICK L. BREMBY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

DEPARTMENT OF HEALTH AND ENVIRONMENT

October 5, 2006

Jerome E. Cibrik, P.G.
Union Carbide Corporation - Remediation Technology Section
P.O. Box 8361
3200/3300 Kanawha Turnpike
South Charleston, WV 25303

468672

RCRA RECORDS

RE: KDHE Technical Review Comments for the Former Unison Transformer Services, Inc., Facility, Kansas City, Kansas, Site Characterization Report, Consent Order # 97-E-0036

Dear Mr. Cibrik:

The Kansas Department of Health and Environment (KDHE) has completed review of the above referenced document and has the following technical review comments. The report was submitted on behalf of Union Carbide Corporation (UCC) by CH2M-Hill Consultants, Inc., and was received June 28, 2006.

1. Limiting ground water confirmation sampling to depths of greatest membrane interface probe (MIP) response may have biased the data set and thus skewed the understanding of the nature and extent of contamination distribution. Additionally, the report states in section 3.1.2 that,

> *"The presence and importance of this potentially continuous clay/silt layer is discussed in more detail in Section 3.2 because it appears that the vertical extent of the dissolved-phase VOC [volatile organic compound] plume is bound by it."*

KDHE is not entirely convinced by nor satisfied with this conclusion for a number of

DIVISION OF ENVIRONMENT
Bureau of Environmental Remediation
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 410, TOPEKA, KS 66612-1367
Voice 785-296-1673 Fax 785-296-7030 http://www.kdheks.gov

RECEIVED
OCT 10 2006
ARTD/RCAP

technical reasons. First, there is confirmed ground water contamination downgradient of the site and also below this clay layer in ground water monitoring wells MW-89D, MW-96, MW-97, MW-98, MW-99 and MW-100. Second, KDHE failed to identify any clear evidence of vertical gradients between ground water monitoring wells screening above 60 feet below ground surface (bgs) or 690 feet (+/-) above mean sea level and those screened below 60 feet bgs. At the very least it appears that this clay layer is not pervasive and has not fully impeded the migration of contaminants to the lower portions of the alluvial aquifer.

KDHE recognizes that one confirmation ground water samples was collected from below this clay layer at SB-09W (from 66 to 70 feet bgs.) KDHE also notes that two soil confirmation samples (SB-05S and SB-06S) were collected below this clay layer (please refer to table 3-3). KDHE believes that the limited amount of characterization data from below this clay layer, may lead to the incomplete conclusion of bounding of VOC impacts.

At the very least added characterization below this clay layer is needed. Please include in the next phase of characterization activities additional soil and ground water confirmation sample collection and analysis, bracketing the zones of highest MIPs response (down to bedrock).

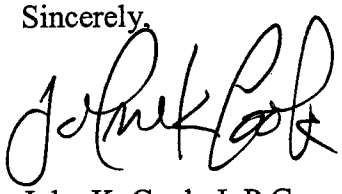
2. When citing contaminant data for ground water in the text (for example, on page 1-4, bullet one) please cite the depth of collection. Also, please include a table for all ground water monitoring wells, piezometers and soil vapor extraction wells showing construction details. This information is included in various portions of the text and other tables, but a summary table would enhance the assimilation of information.

3. The legend found in figures 3-2 A and B, 3-3 A and B, and 3-4 A and B, are incomplete. While there are narrative descriptions included early in the text and in the figures notes defining what the various shaded areas represent, please include on all appropriate figures graphical scale ranges in the legend for the soil conductivity and ECD (electron capture detector) shaded areas.

4. KDHE finds the system optimization recommendations acceptable as detailed in section 4.1. Please be mindful that the requested added characterization of the lower sand bearing unit(s) may necessitate additional ground water monitoring well installation, sample collection and analysis.

KDHE expects written responses to these technical review comments and a revised document (if deemed appropriate) within 30 days of receipt of this letter. In the meantime, if you have comments or questions I can be reached at johncook@kdhe.state.ks.us or (785) 296-8986.

Sincerely,



John K. Cook, L.P.G.
Professional Geologist
Remedial Section/State Cooperative Unit
Bureau of Environmental Remediation

JKC/lmb

cc: File: C4-105 70168 1.0
Michael B. Davis, EPA Region 7, RCAP
Don Blackert, Key Environmental, Inc.

FORM A-2

STATE OF KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT
1000 SW JACKSON—SUITE 410
TOPEKA, KANSAS 66612-1367
264-27

PRESORTED FIRST CLASS

$00.39
10/08/2008
US POSTAGE

MICHAEL B DAVIS
US EPA REGION 7 ARTD
901 N 5TH ST
KANSAS CITY KS 66101

1-HMTM3 66101